

CLAIMS

1. A core for manufacturing pneumatic tires, comprising a plurality of segments that are aligned in contact with each other to form a toroidal assembly, and a pair of retainer rings engageable with said assembly axially from both sides
5 so as to retain said plurality of segments in an assembled state, said core defining an inner surface of a tire from its formation up to completion of vulcanization of the tire, wherein:

said segments are each divided into a center portion that corresponds to a center portion of the tire in its width direction, and side portions that correspond
10 to both side portions of the tire, respectively, said center portion and said side portions of each segment being detachably connectable to each other.

2. The core for manufacturing pneumatic tires according to claim 1, wherein each of said segments has parting surfaces between said center portion and said side portions, said parting surfaces of the segments being arranged in
15 common planes when said segments are aligned as said toroidal assembly.

3. The core for manufacturing pneumatic tires according to claim 1 or 2, wherein said toroidal assembly of the segments comprises small segments having a plane width that is substantially constant or gradually decreased radially outwards, and large segments having a plane width that is gradually increased
20 radially outwards, said small segments and said large segments being alternately arranged in a circumferential direction.

4. The core for manufacturing pneumatic tires according to any one of claims 1 to 3, wherein each of said segments further comprises a base portion integrally arranged on an inner peripheral side of said center portion, and
25 wherein said side portions and said base portion of each segment are provided with positioning/assembling portions for the side portions, respectively.

5. The core for manufacturing pneumatic tires according to claim 4, wherein said positioning/assembling portions comprise at least one kind of male/female fitting portions.

30 6. The core for manufacturing pneumatic tires according to any one of claims 1 to 5, wherein said segments are each provided with a connector means for connecting said side portions to said base portion.

7. The core for manufacturing pneumatic tires according to any one of

claims 1 to 6, wherein each of said segments has a maximum width at its portions corresponding to sidewall portions of the tire, and a minimum width at its portions corresponding to bead portions of the tire, said maximum width being larger than said minimum width by at least 40 mm.